UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

Drafted Date: September 27, 2019
Finalized Date: Oct 22, 2019

Subj: Inspection Report
Clean Water Act - National Pollutant Discharge Elimination System ("NPDES")
Hull WPCF

From: David Turin

Thru: Andrew Spejewski

To: File

I. Facility Information

A. *Facility Name:* Hull WPCF

B. *Facility Location*: 1111 Nantasket Ave
Hull, MA 02045

C. *Facility Contacts:* Aram Varjabedian, Project Manager
Bill Boornazian, Asst Project Manager

D. *NPDES ID No(s).:* MA0101231

II. Background Information

A. *Date(s) of inspection:* September 18, 2019

B. *Weather Conditions:* Mid-60s, mostly sunny (wunderground.com)

C. *US EPA Representative(s):*
David Turin, Beth Kudarauskas

D. *State/Local Representative(s):*
N/A

E. *Federally Enforceable Requirements Covered During the Inspection:*
NPDES compliance under CWA Sec. 402

F. *Previous Enforcement Actions:*
N/A

III. Type and Purpose of Inspection

Focused inspection to assess suitability of Hull WPCF as field exercise location during upcoming EPA National Inspector Workshop.

IV. Facility Description

The Hull Water Pollution Control Facility is a municipal activated sludge wastewater treatment plant that is permitted to discharge approximately 3 MGD. Cohasset and Hingham are co-permittees.

V. Inspection

The inspection was arranged on 9/11/2019 by David Turin with John Struzziery, Director of Wastewater Operations for the Town.

We arrived at approximately 11:45 am and were greeted by Aram Varjabedian, Project Manager for Woodard and Curran, contract operators of the system. We presented credentials, signed in, read and signed a safety notification form, as required by Mr. Varjabedian.

A. Opening Conference

Mr. Varjabedian explained that Mr. Struzziery would be arriving later and he introduced Bill Boornazian, Asst. Project Manager for Woodard and Curran. We explained that the purpose of the inspection was to evaluate compliance at the facility and collect information to help determine if the facility was suitable for a field exercise being planned for a national inspector workshop being held in Boston the week of November 18, 2019. I explained that Hull was being considered for the field exercise because of its location and size, because of its experience dealing with catastrophic flooding that occurred in 2013 and also because of resiliency planning efforts that it has been undertaking more recently. During this discussion, we were joined by Mr. Struzziery and Brian Kiely, the Asst. Dir. Of Wastewater Operations.

We explained that the likely format of the exercise would be to divide the anticipated 15 to 25 participants into groups to rotate through four stations to demonstrate: 1) flow monitoring; 2) an ISCO composite sampler; 3) Sludge blanket/microbe characterization; and 4) records review. We indicated that we would coordinate closely with the facility and they would receive additional information about each of these stations and other information.

B. Facility Tour

The site tour began in the headworks in the basement level of the treatment plant. The staff showed us the Parshall flume, which is covered with rubber mats to help control odors [Photo 1 and 2]. The facility explained that it relies on “strap-on” flow meters to measure influent and effluent flow at the facility via readings through the pipes, rather than the Parshall flume. Dimensions of the Parshall flume would be needed to use it for measuring flow during the field exercise. The facility explained that it uses another flow meter on the influent line between the primary distribution box and the aerators to cross-check the influent strap-on meter. Pumps and electrical control boxes are in the subbasement. The operators pointed out the influent and

effluent strap-on flow meters [Photo 3] and indicated that while only 1 of 5 available influent pumps are needed during dry weather, all 5 may be needed to handle wet weather flow. The facility also described an influent headworks project that, among other things, would move critical electrical equipment to a higher level to protect against flooding.

Outside the main facility building, we observed a new 3000 gallon above ground diesel fuel tank for the emergency generator [Photo 4]. We were told that the facility has an SPCC plan but did not ask to review it during this inspection. We also observed flood control gates to protect the building [Photo 5]; we were told that according to 2070 flood level projections, these gates will need to be 4' higher than they are.

We were informed that primary clarifiers are bypassed at the splitter box and flow is diverted directly to the aeration tanks. According to the Mr. Varjabedian, this primary clarifier bypass has been in place since 2016 and the facility operates well with this configuration. The primary set of aeration tanks use diffused air. A second set of tanks that were not serviceable during a previous inspection by EPA are now reportedly available if needed and rely on mechanical mixers [Photos 5 and 6]. The operators pointed out the optical flow meter on the aeration tank influent line that they had referenced as a check of the strap-on meters, but acknowledged that this meter is not currently working properly.

We observed the chlorine contact chamber, which is comprised of two channels that pass over weirs and recombine before entering the outfall pipe. We observed the final effluent sampling location on one of these channels [Photo 7].

Finally, we visited to the facility lab and observed the available equipment, including a microscope with a monitor that is available for assessing the sludge condition.

The operators described a number of projects in addition to the headworks project, including new gear drives for secondary tanks and a sewer relining project currently underway.

E. Closing Conference

In a closing conference, we discussed additional details for the inspector workshop including logistics of getting inspectors to the facility via MBTA ferry service, necessary PPE, suitability of the conference room for the group, and lunch options. We departed at approximately 2:30 pm.

Unless otherwise noted, this report describes conditions at the facility/property as observed by EPA inspector(s), and/or through records provided to and/or information reported to EPA inspector(s) by facility representatives and as understood by the inspector(s). This report may not capture all operations or activities ongoing at the time of the inspection. This report does not make final determinations on potential areas of concern. Nothing in this report affects EPA's authorities under federal statutes and regulations to pursue further investigation or action.

Photos:

Photo 1: Parshall flume at headworks

Photo 2: Rubber mat over Parshall flume

Photo 3: Strap-on meters

Photo 4: Emergency generator fuel tank

Photo 5 and 6: Aeration tanks

Photo 7: Effluent sampling station